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ON DEFINING STAGES IN PREHISTORIC GERMANIC

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1. In recent years there have been a number of interesting attempts to re-define the prehistoric stages of Germanic.* The need for such a redefinition has long been evident, as van Coetsem, Makaev, and Lehmann have all pointed out.¹ One of the reasons for this need is undoubtedly to be found in the prevailing view of a protolanguage as an entity which is 'timeless, non-dialectal, and non-phonetic', and therefore unreal.² Pulgram, for example, considers 'Reconstructed Proto-Indo-European' (in contrast to 'Real Proto-Indo-European')³ to be a 'timeless structure which is diachronically heterogeneous, though synchronically uniform' (425). This characterization of our reconstruction of Proto-Indo-European may be accurate, but it is questionable whether all protolanguages are equally 'timeless', at least in the relative sense. The younger protolanguages which we can reconstruct within the Indo-European family, such as Proto-Germanic and Proto-Romance, cannot be placed in an identical frame of reference with Proto-Indo-European. The latter is reconstructible only on the basis of internal evidence. The younger protolanguages, however, have the added advantage of disposing over comparative evidence from related languages outside their limited groups to provide them with additional depth. This is perhaps what Bloomfield had in mind when he made an exception of Proto-Germanic and Proto-Romance to his general rule that the comparative method 'cannot claim to picture the historical process' (318).

It is of course true that the triangulation methods⁴ of comparative linguistics lead to fixed points in time and space.⁵ It is not true, however, that all triangulation lines plotted for a protolanguage such as Proto-Germanic meet in a single, chronologically uniform point. It is quite clear from internal evidence, for example, that the Germanic accent shift must have occurred after the consonant shift

* An earlier version of this paper was presented at the meeting of the Linguistic Society in Chicago on 28 December 1963. I am indebted to Warren Cowgill for a number of constructive criticisms and comments.

¹ Fr. van Coetsem, *Das System der starken Verba und die Periodisierung im älteren Germanischen* (Amsterdam, 1956); E. A. Makaev, 'Ponjatje obščegermanskogo jazyka', *Voprosy germanskogo jazykoznanija* 44-67 (Moscow-Leningrad, 1961), and 'Ponjatje obščegermanskogo jazyka i ego periodizacija', *Sravnitel'naja grammatika germanskix jazykov* 1.114-24 (Moscow, 1962; translations from Russian works are my own); W. P. Lehmann, 'A definition of Proto-Germanic: A study in the chronological delimitation of languages', *Lg.* 37.67-74 (1961).

² W. F. Twaddell, 'The prehistoric Germanic short syllabics', *Lg.* 24.139 (1948); cf. also L. Bloomfield, *Language* 311 (New York, 1933).

³ E. Pulgram, 'Proto-Indo-European reality and reconstruction', *Lg.* 35.421-6 (1959).

⁴ R. A. Hall, Jr., *Idealism in Romance linguistics* 13 (Ithaca, N. Y., 1963).

⁵ Cf. H. Lüdtke's definition of a protolanguage: 'ein in seinen Elementen möglicherweise unvollständiges, in seiner Struktur jedoch einheitliches und widerspruchsfreies Sprachsystem, dessen räumlicher und zeitlicher Geltungsbereich gegen Null strebt', in 'Der Ursprung des germanischen \bar{e} und die Reduplikationspräterita', *Phonetica* 1.160 (1957).

had taken place, although these and other chronologically diverse developments have customarily been included under the single designation of Proto-Germanic. The 'timelessness' of Proto-Germanic is thus as much a result of the inflexible view that protolanguages represent fixed points, rather than stages of development, as of the admittedly great limitations inherent in the comparative method.

With the refined methods made available to us by the structural approach to historical linguistics (including, of course, Twaddell's contribution in the article cited above), it is entirely possible for us to posit approximate phonetic values for the various phonemes in different environments in Proto-Germanic. The contention that our reconstruction is nonphonetic in nature therefore cannot be accepted in an absolute sense. In addition, if we abandon the older single-point-in-time concept of Proto-Germanic, it will become evident that we can posit dialectal differences for various stages in the prehistory of the Germanic languages, particularly if we define those stages on the basis of structural criteria. What we have reconstructed will, of course, not be the actual language spoken at any given time in any given place. It will still be a reconstruction, but with the important difference that it will possess those basic features common to all observable languages. It will display development in time, subphonemic variation, and gradual dialectal differentiation in contrast to the sharp splits presented by the family-tree theory. In other words, the reconstructed language may not be an exact replica of the 'real' language which we must assume to have existed at some time, but it will at least represent a working model of a living, developing speech form.⁶ There will be no need to distinguish between 'real' and 'reconstructed' Proto-Germanic, since a protolanguage is by definition a reconstruction. We have absolutely nothing to say about the 'real' language, except that it existed. The designation 'PGmc. */fáder/' will indicate at one and the same time our belief that a real language once existed and that this language possessed a form meaning 'father', which we assume had the indicated phonemic shape. Our conviction that this language was a living, developing entity with the possibility of chronological and spatial variation will be expressed by our positing of the approximate phonetic value *[fáðer], which must have been replaced by *[fáder] in a more limited area within this or a succeeding period.

2. The new definitions of prehistoric stages in Germanic advanced by van Coetsem, Makaev, and Lehmann have not produced a uniform view of the stages to be posited, of the terminology to be used, or of the structural criteria to be exploited in delimiting the earliest stage of the language which is clearly discernible as Germanic. As a result, any study of developments in prehistoric Germanic must still be approached with an eye to the individual author's own interpretation of such terms as pre-Germanic, Proto-Germanic, and Common Germanic, to mention the three which occur most frequently.

Table 1 illustrates what I understand to be the views of van Coetsem, Makaev, and Lehmann with regard to the stages they posit and the consonantal develop-

⁶ Cf. Lehmann 73-4; Hall 5-20; J. W. Marchand, 'Was there ever a uniform Proto-Indo-European?', *Orbis* 4.428-31 (1955); H. Penzl, 'Zur Vorgeschichte von westsächsisch æ und zur Methode des Rekonstruierens', *Wiener Beiträge zur englischen Philologie* 66.168-9 (1958).

	VAN COETSEM	MAKAEV	LEHMANN
(PROTO-)IE	* <i>pətēr</i>	* <i>pətēr</i>	*/ <i>pətēr</i> /
PRE-GMC.	—	—	*[<i>faðēr</i>]
PROTO-GMC. (EARLY GMC.)	* <i>faðēr</i>	* <i>p^hathēr</i>	*/ <i>fáder</i> / [<i>fáðer</i>]
COMMON GMC. (LATE GMC.)	* <i>fáðer</i>	* <i>fáðer</i>	—

TABLE 1

ments within each. The table can only be an approximation, since the scholars concerned treat the different developments with varying degrees of detail, and a certain amount of interpretation on my part could not be avoided.

It will be seen that Lehmann differs from his two colleagues in rejecting a separate Common Germanic stage and in positing a pre-Germanic period. It is also evident that van Coetsem places the Germanic sound shift and the changes described by Verner's Law in his Proto-Germanic period, while he relegates the Germanic stabilization of the accent on the first syllable to his Common Germanic. Makaev posits an intermediate stage of the sound shift for his Proto- (or Early) Germanic, placing the completion of the shift, the effects of Verner's Law, and the accent shift all in the Common (or Late) Germanic period.⁷ Lehmann, on the other hand, considers the consonant shift to have occurred in pre-Germanic (with an allophonic variation between voiced and voiceless spirants conditioned by the position of the still movable accent), while the stabilization of the accent and the resulting phonemicization of the voiced and voiceless spirants fall in the Proto-Germanic stage.

Some of the discrepancies just noted are merely the result of a difference in terminology. The stage labeled Common Germanic by van Coetsem and Common or Late Germanic by Makaev corresponds to Lehmann's Proto-Germanic, and Makaev's Proto-Germanic (or Early Germanic) would certainly be considered a stage of pre-Germanic by Lehmann, if the latter should choose to recognize such an intermediate step in the consonant shift.⁸

The basis of these terminological discrepancies can be sought in the divergent opinions concerning which stage is clearly discernible as the earliest Germanic

⁷ In his study in *VGJa.*, Makaev proposed the term 'Proto-Germanic' to designate the period from the dissolution of Indo-European to the establishment of a Germanic linguistic community, which was then followed by 'Common Germanic', the period from the establishment of this community to the appearance of individual dialect groups. In his contribution to the first volume of the *Sravnitel'naja grammatika*, Makaev gives the term 'Common Germanic' a new definition, according to which it includes 'Early Germanic' (comparable to his former 'Proto-Germanic') as well as 'Late Germanic' (comparable to his former 'Common Germanic'). The need for a certain amount of 'terminological hygiene' (in Pulgram's words, 424 fn. 9) becomes abundantly clear from the problems faced by H. Fromm, 'Die ältesten germanischen Lehnwörter im Finnischen', *Zeitschrift für deutsches Altertum* 88.94-101 (1957-8).

⁸ From a purely objective point of view, there is little reason to prefer either 'Proto-Germanic' or 'Common Germanic' to designate the period of unity reconstructible for all the later dialects from internal evidence. The term 'Common Germanic', however, has been used in so many different interpretations, ranging from the period after the dissolution of Proto-Indo-European to features 'common' to the later dialects, that one must agree with Lehmann (67 fn. 2) that the term ought to be discarded entirely.

stage in the development from Proto-Indo-European to the attested Germanic languages. Van Coetsem writes, 'In der ältesten Zeit verliert sich das Urgermanische im Indogermanischen; eine scharfe Grenze ist also nicht zu ziehen' (75). Makaev defines his Early (or Proto-) Germanic as the period 'from the era of gradual separation from the Indo-European languages of the western area to the stabilization of Common Germanic' (*SG* 115). Particularly worthy of note is the fact that both van Coetsem and Makaev consider their earliest period of Germanic to be structurally much closer to the preceding Indo-European period than to the following Common (or Late) Germanic which they posit. They therefore agree that the major break in the continuum occurs after this early period. We see then that this period actually represents an Indo-European dialect which was still a member of a larger (according to Makaev, western) Indo-European linguistic community and not yet a detached group with an independent existence. The use of the term 'Proto-Germanic' or even 'Early Germanic' to designate this period should therefore be rejected on the grounds that the language is not clearly definable as Germanic from a structural point of view.⁹

Makaev considers the term 'pre-Germanic' to be superfluous because it 'designates nothing other than the Indo-European state' (*VGJa.* 48, fn. 10). It does indeed represent an Indo-European state, but its value as a separate concept lies in the fact that it is intended to designate a particular segment of Indo-European, or perhaps of western Indo-European, which is not yet clearly definable and may well have included at some time certain non-Germanic dialects. At the present state of our knowledge, it remains the only practical term for describing the developments in the 2,000 years usually posited between the end of the Proto-Indo-European period and the establishment of an independent Germanic linguistic community.

The full structural significance of the Germanic accent shift was clearly recognized by Fourquet, who notes,¹⁰ 'Die 1. LV. [Lautverschiebung] im engeren Sinne müsste dann der Geschichte der dialektischen Differenzierung des noch zusammenhängenden Idg. zugewiesen werden.' Nevertheless, Fourquet also speaks of 'Proto-Germanic' before the accent shift. It remained therefore for Lehmann to propose a definition based on the importance of the accent shift itself. According to Lehmann, Proto-Germanic is 'that stage of Germanic which was spoken between the time of the Germanic accent shift and the loss of /e a/ when final and weakly stressed' (70). What came before this period is rightly relegated to the still nebulous pre-Germanic stage.¹¹

⁹ I am indebted to Charles F. Hockett for calling to my attention the important point that Proto-Germanic must be reconstructed from internal Germanic evidence. The definitions by van Coetsem and Makaev, of course, do not meet this requirement.

¹⁰ J. Fourquet, 'Die Nachwirkungen der ersten und der zweiten Lautverschiebung', *Zeitschrift für Mundartforschung* 22.33 (1954).

¹¹ Makaev's objections to Lehmann's definition of Proto-Germanic (*SG* 116-7) are based on the assumption that Lehmann denies the existence of a period of unity before the onset of Proto-Germanic. Such a period, however, is implicit in Lehmann's discussion of developments in pre-Germanic (74). Cf. H. Kufner's review of *SG I* in *Lg.* 39.509 (1963).

3. In the foregoing, I have found myself in agreement with Lehmann's conception of the periods to be posited, the terminology to be employed, and the structural criterion to be used in marking the onset of the Proto-Germanic period. It is also possible for me to agree with his criterion for marking the close of this period, i.e. the loss of PGmc. /e a/ in weakly stressed final syllables.¹²

As Fourquet, van Coetsem, and Makaev have emphasized, the shift and stabilization of the accent in Germanic resulted in the disruption of the autonomy of the syllable which was characteristic of Indo-European. It is by means of this shift that the changes described by Verner's Law assume structural significance. It is also this shift which determines the future fate of all weakly stressed vowels. We also have every reason to assume that it is this shift in accent which leads to the development of variations in the stressed vowels which ultimately appear as new mutation phonemes in the later dialects.^{12a}

It is now generally recognized that the various umlaut phonemes in the several Germanic dialects are the result of a phonemic split, which in turn is traceable to the formation of special allophones of the stressed vowels through their assimilation to following vowels (and sometimes consonants).¹³ Because the results of these assimilations seem to vary from dialect to dialect, investigators have long been reluctant to assume that the assimilations themselves began in Proto-Germanic times. Yet we find that the surviving Germanic languages all

¹² In 'The Proto-Norse vowel system and the younger fupark', *Scandinavian studies* 35.207 fn. 30 (1963), I rejected Lehmann's demarcation of the end of this period because I interpreted 'the loss of /e a/ when final and weakly stressed' to refer to absolute final position and it did not seem possible to fix the time of the loss of these vowels (cf. Makaev, *SG* 117). In the meantime, it has become clear to me that Lehmann was referring to final syllables and not to absolute final position exclusively, making it possible to equate the loss of /e a/ with the criterion I proposed as a substitute, the phonemicization of [o] > /o/. In addition, I believe I have now found internal evidence for the retention of PIE /e a o/ even in absolute final position into Proto-Germanic (see fn. 56 below).

^{12a} E. Hamp, 'Final syllables in Germanic and the Scandinavian accent system', *Studia linguistica* 13.29-48 (1959), also sees a possible correlation between the Germanic accent shift and a shift in junctural phenomena. According to Hamp, a pre-Germanic 'secondary accent developed (or continued?), at first as an allophone of juncture, on those post-junctural syllables which did not themselves bear a [Proto-Indo-European] primary', whereupon 'By a shift (perhaps of junctural phenomena), the old secondary became primary, and the old primary continued as a secondary' (34). The loss of open juncture between such syllables would, of course, result in the so-called 'loss of autonomy' of the syllable in Proto-Germanic. It is a well-known feature of umlaut assimilations that they never occur across open juncture, but they can and do occur when that juncture disappears, as in the case of Otfrið's *meg ih, werf iz for mag + ih, warf + iz*; see W. Braune, *Althochdeutsche Grammatik*¹⁰ §26 Anm. 3 (Tübingen, 1961).

¹³ W. F. Twaddell, 'A note on Old High German umlaut', *Monatshefte für deutschen Unterricht* 30.177-81 (1938), also *Lg.* 24.139-51 (1948); H. Penzl, 'Umlaut and secondary umlaut in Old High German', *Lg.* 25.223-40 (1949), 'Zur Entstehung des i-Umlauts im Nordgermanischen', *Arkiv för nordisk filologi* 66.1-16 (1951), also *Wiener Beiträge* 66.158-69 (1958); J. Fourquet, 'The two e's of Middle High German', *Word* 8.122-35 (1952), and 'Perspectives sur l'histoire du vocalisme allemand', *Travaux de l'Institut de Linguistique* 1.109-24 (1956); M. I. Steblin-Kamenskij, 'Concerning the three periods in the Scandinavian i-umlaut', *Arkiv* 74.105-11 (1959); C. F. Hockett, 'The stressed syllables of Old English', *Lg.* 35.575-97 (1959).

bear witness to the former presence of such allophones, and even the Gothic evidence can be interpreted in such a way that the pre-Gothic vowel shifts are traceable in part to similar assimilations.¹⁴ How then do we account for the rather astonishing similarity in the development of the vowel systems of the various dialects? One theory which has attained rather wide currency is that umlaut arose in one dialect and then spread to the others.¹⁵ Another is that the tendency to umlaut was inherited. The latter theory has received some support from Höfler, who sees an intimate connection between this tendency and a gradual increase in the strength of the Germanic stress accent, which supposedly took place in all the dialects.¹⁶ This view, of course, presupposes that the stress in Proto-Germanic was not so strong as in later stages; evidence in favor of the hypothesis is the gradual loss of vowels in weakly stressed syllables. However, whether we think of the stress on the root syllable in Proto-Germanic as having been very strong or only relatively strong, the fact remains that once the accent has been shifted and fixed, the root syllable is consistently distinguished from all others. This is the one prerequisite for assuming that the Indo-European autonomy of the syllable has been disrupted and the way cleared for the vowel assimilations characteristic of Germanic.

If mutation is directly related to the fixed stress accent, as most investigators seem to believe,¹⁷ then we must look to the rise of that type of accent to find the point after which the allophonic variation began. The successive loss of various vowels in weakly stressed syllables does not yield evidence concerning the formation of the variants in the stressed syllables. The loss can only be correlated with the phonemicization of those variants. There can be no doubt that the umlaut allophones arose at a time when the full endings were still present, and there is no reason to assume that the assimilations involved in *a*-umlaut occurred before those involved in *i*- or *u*-umlaut, nor is there any reason to assume that the

¹⁴ See for example Twaddell, *Lg.* 24.143, and W. G. Moulton, 'Zur Geschichte des deutschen Vokalsystems', *Beiträge zur Geschichte der deutschen Sprache und Literatur* (Tübingen) 83.7-9 (1961), as well as §5 below.

¹⁵ Cf. L. L. Hammerich, 'Über das Friesische', *Mélanges linguistiques offerts à M. Holger Pedersen* 352 (Aarhus-Copenhagen, 1937), from Scandinavia southwards; E. Schwarz, *Goten, Nordgermanen, Angelsachsen* 261 (Bern-Munich, 1951), from the North Sea coast of Germany north, south, and west; and D. DeCamp, 'The genesis of the Old English dialects', *Lg.* 34.240 (1958), from 'somewhere in southern Germany ... northward to the Frisians ... to Kent, and then, probably during the first half of the seventh century, spread throughout England'.

¹⁶ O. Höfler, 'Stammbaumtheorie, Wellentheorie, Entwicklungstheorie', *Beiträge* (Tüb.) 77.30-66, 424-76 (1955), 78.1-44 (1956).

¹⁷ It is primarily the fixation of the stress on the root syllable rather than its dynamic nature which should be noted here. Cf. A. Martinet's remark: 'On se fait probablement une idée un peu trop simpliste et brutale de l'action d'un accent d'intensité. On y voit toujours une force aveugle à laquelle rien ne peut résister et qui saccage sans rémission les distinctions morphologiques ou lexicales qui ont le malheur de mettre en cause le vocalisme non-accentué', *Economie des changements phonétiques* 169 (Bern, 1955). Martinet suggests the possibility that the stress accent in Germanic arose as the result of a transfer of energy from inflectional syllables to the root after the assimilation of the vowels in root syllables (umlaut) had rendered the endings functionally insignificant. Through this transfer of energy, the vowels of the inflectional syllables underwent syncope or apocope (199).

i-umlaut of /e/ preceded the *i*-umlaut of /a/.¹⁸ The presence of reflexes of mutation allophones in all dialects and the absence of any 'Rückzugsgebiete' demand that we consider the various umlauts to be the result of a single phonetic tendency which was active in the Proto-Germanic period. We have cause to be wary of assertions that umlaut is a common Germanic phenomenon, but not Proto-Germanic, or that mutation arose in the individual dialects. From the structural point of view there is an element of truth in such statements, but they give the erroneous impression that there is no direct connection between the mutations found in the various dialects, and—even worse in my opinion—they lead to the assumption that umlaut arose in one dialect and spread to the others.

Höfler would like to attribute the common feature of mutation in the dialects to a 'phylogenetic development' comparable to the mental and physical growth of identical twins. If we wish to make use of terminology from the biological sciences, we should seek to identify the genes which are responsible for this Germanic hereditary disease, and this we can do. The mutated genes are the umlaut allophones which must have been present in Proto-Germanic. The vowel phonemes traceable to these allophones display a certain amount of variation in the succeeding generations, but the effects of the original mutations are nevertheless clearly in evidence. The divergent shapes and distributions of the phonemes in the individual dialects can be ascribed to a very large extent to secondary developments in those dialects which have no direct connection with the umlaut process itself.¹⁹

4. On the basis of the reflexes found in the later dialects, we can posit for Proto-Germanic a short-vowel system consisting of four phonemes with the contrast spread-rounded in the high and mid series and with three tongue heights.²⁰

¹⁸ In spite of the arguments of such investigators as L. F. Leffler, 'Bidrag till läran om *i*-omljudet', *Nordisk tidskrift för filologie og pædagogik* NS 2.1-19, 146-80, 231-98, 299-320 (1875-6); A. Kock, 'Der *i*-umlaut von *e* in den altnordischen sprachen', *Beiträge* 27.166-90 (1902); and L. E. van Wijk, *De klinkers der oergermaansche stamsyllaben in hun onderling verband* 70-1 (Utrecht, 1936), some scholars still are reluctant to recognize the change of /e/ to /i/ as a form of *i*-umlaut; see e.g. K. Brunner, *Die englische Sprache*² 1.242 (Tübingen 1960).

¹⁹ I have attempted to trace these developments for English and Icelandic in 'Germanic umlaut anew', *Lg.* 37.215-30 (1961), for East Norse in *Scand. studies* 35.195-207 (1963), and for German in 'Zum Umlaut im Deutschen', forthcoming in *Beiträge* (Tüb.) 86:2 (1964).

²⁰ A number of scholars present the Proto-Germanic short vowels in a rectangle with only two tongue heights, e.g. Makaev, *VGJa* 67, and Lehmann, 'The conservatism of Germanic phonology', *Journal of English and Germanic philology* 52.149 (1953). Such a presentation gives the impression of symmetry between the short- and long-vowel systems. It should be pointed out, however, that we must rely on internal evidence to determine the contrasts of the protolanguage. Since the spread vowels develop back allophones, the rounded vowels front allophones, and /a/ develops not only back and front allophones but also a central one, it is obvious that we are dealing with a short-vowel system which had the contrasts spread-rounded (with frontness and backness irrelevant) and three tongue heights (see *Scand. studies* 35.197-9). By the same token, in reconstructing the long-vowel system, we must posit two tongue heights with the contrast spread-rounded on the basis of the allophones which develop. It may well be that PIE /ā/ took up a position halfway between [ā] and [ō] during the course of its development toward PGmc. /ō/, but such a stage would have to be placed in pre-Germanic, since it is not reconstructible from purely Germanic evidence.

Each of these phonemes was realized in a number of variants conditioned by the nature of the vowels or semivowels in the following syllables. It is clear from the later reflexes that the assimilation which produced these variants was restricted to the point of articulation of the stressed vowels, i.e. the high vowels /i/ and /u/ were lowered to [i] and [o] before /-a/, e.g. PGmc. */nista-/ = *[nɪsta-] 'nest', */hulta-/ = *[holta-] 'wood'; the normally front spread vowels /i/ and /e/ underwent backing to [u] and [ʌ] before /-u/, e.g. */silubr-/ = *[sulubr-] 'silver', */freþu-/ = *[frʌþu-] 'peace'; normally back rounded /u/ was fronted to [y] before /-i/, e.g. */hulti-/ = *[hylti-] 'of wood'; the mid vowel /e/ was raised to [e] before /-i/, e.g. */seti-/ = *[seti-] 'you, he sit(s)'; and low neutral /a/ was raised and fronted to [æ] before /-i/, e.g. */gasti-/ = *[gæsti-] 'guest', raised and backed to [ɑ] before /-u/, e.g. */magu-/ = *[mɑʒu-] 'son', and raised to a higher central allophone [ə] under the influence of combined *i*- and *u*-umlaut, e.g. */aþuling-/ = *[əþuling-] 'noble'. This phonemic-allophonic system is indicated in Table 2; the nonmutated allophones are not shown separately, thus /i/ represents not only the phoneme itself, but also the primary allophone [i].²¹

Although the Proto-Germanic long-vowel system has been the subject of much debate, the internal evidence points once again to a four-phoneme system with the contrast spread-rounded, but in this instance only two tongue heights.²² Here, too, the later reflexes permit us to posit a Proto-Germanic assimilation of the point of articulation, so that the spread phonemes /ī/ and /ē/ are realized in the back allophones [ū] (rare) and [̄] before /-u/, e.g. PGmc. */bliw-/ = *[blūw-] 'lead', */rēdu-/ = *[r̄̄du-] 'advice (pl.)'; the rounded phonemes /ū/ and /ō/ in the front allophones [ȳ] and [ȝ] before /-i/, e.g. */mūsi-/ = *[mȳsi-] 'mice', */dōmjan-/ = *[d̄̄mjan-] 'deem'; and low spread /ē/ in a higher allophone [ē] before /-i/, e.g. */mēri-/ = *[m̄̄ri-] 'famous', as shown in Table 3.

The further development of the long- and short-vowel systems posited above in those dialects which have survived the period of the Great Migrations involves the appearance of two new phonemes and a shift in a third, leading to symmetrical five-phoneme systems for both the long and the short vowels.

Let us look first to the development of the short vowels.²³ This system was asymmetric in itself, as well as in comparison with the long vowel system. In-

	SPREAD	ROUNDED
HIGH	/i/ [ɯ] [i] [e]	[y] /u/
MID	/e/ [ʌ] [æ] [ə] [ɑ]	[o]
LOW		/a/

TABLE 2. PROTO-GERMANIC SHORT-VOWEL SYSTEM

²¹ It should be stressed that the allophonic symbols in square brackets do not suggest absolute phonetic values. They do, however, suggest the relative values of the allophones with regard to the primary (nonassimilated) allophone of each phoneme. For typographical reasons, it has been necessary to substitute [ʌ] for the IPA symbol for the mid back spread vowel.

²² Concerning the later appearance of /ē̄/, see §5.

²³ Cf. Twaddell, *Lg.* 24.139-51.

	SPREAD	ROUNDED
HIGH	/ī/ [ū] [ē]	[ȳ] /ū/
LOW	/ē/ [ā]	[ō] /ō/

TABLE 3. PROTO-GERMANIC LONG-VOWEL SYSTEM

ternal symmetry was attained here through the appearance of a mid rounded phoneme /o/, the reflex of the former lower allophone of /u/. It is usually assumed that this phonemicization was the result of the reduction of the conditioning /-a/ in at least certain positions,²⁴ although it is also possible that it occurred in order to fill the 'hole in the pattern'.²⁵ As soon as /o/ represented an independent phoneme, it could be introduced through analogy into positions before /-i/ (cf. Gallehus *holtijar*, with /o/ in analogy with */holt-/). In such positions, of course, /o/ would be realized in a front allophone ([høltijar]), since frontness and backness were still phonemically irrelevant.

The later dialects attest to another type of development also, the rearrangement of the original distribution of the allophones of the two spread phonemes. Because the dialects present evidence of a regular development of PIE /i/ > /e/ before /-a/ and of PIE /e/ > /i/ before /-i/ (with analogical distortion of the original distribution), Marchand reached the conclusion that these two phonemes must have merged into a single phoneme in Proto-Germanic.²⁶ Such an assumption is untenable, however, since we have very strong evidence from the later dialects that the two phonemes never lost their independent identities. Old English and Old Scandinavian have preserved distinct reflexes of PGmc. /e/ (= PIE /e/) before /-u/: OE *eo*, OIcel. *ið*.²⁷ Had PIE /i/ and /e/ actually coalesced, we would have to explain these reflexes as the result of a normal development of *[i e] > /e/ before /-a/ and then a further development to the attested reflexes through the analogical introduction of this new /e/ into positions before /-u/, since we also have distinct reflexes of PGmc. /i/ (= PIE /i/) before /-u/ in these same languages: OE *io*, OIcel. *y*.²⁸ Moulton's basically correct observation that we must consider the raising of PIE /e/ to /i/ before /-i/ and the lowering of PIE /i/ to /e/ before /-a/ to have been the regular phonetic development, and that those instances in which the raising or lowering did not take place must be explained as the result of analogical leveling, in no way proves that Proto-Germanic displayed a single *[i/e]-phoneme.²⁹ The argumentation of these two scholars fails to take into consideration the fact that the so-called 'raising' of PGmc. /e/ before /-u/ is essentially an Old High German (and perhaps Old Saxon) phenomenon and must therefore be relatively late.³⁰

²⁴ Twaddell, *Lg.* 24.149.

²⁵ J. Kuryłowicz, 'The Germanic vowel system', *Biuletyn Polskiego Towarzystwa Językoznawczego* 11.54 (1952).

²⁶ J. W. Marchand, 'Germanic *i and *e—two phonemes or one?', *Lg.* 33.346–54 (1957).

²⁷ Brunner 245; A. Noreen, *Geschichte der nordischen Sprachen*³ §28c (Strassburg, 1913).

²⁸ Brunner 245; Noreen §29c; *Lg.* 37.225.

²⁹ Moulton 12; *Scand. studies* 35.197 fn. 8.

³⁰ See my discussion in *Beiträge* 86: 2 §6; cf. also Kuryłowicz 52 fn. 1, and M. Joesten, *Untersuchungen zu ahd. (as.) ē, i vor u der Folgesilbe und zur 1. Pers. Sg. Präs. Ind. der starken e-Verben* (Giessen, 1931).

The peculiar distribution of reflexes of PGmc. /i/ and /e/ can best be accounted for by positing a reassignment of allophones, according to which [e] was attracted into the orbit of /i/ (e.g. */seti-/ = *[sɛti-] > */siti-/) and [i] into the orbit of /e/ (e.g. */nista-/ = *[nɪsta-] > */nesta-/). The back allophones [ʊ] and [ʌ] were not affected by this realignment and remained with their original phonemes.³¹ The result of the changes discussed above is seen in Table 4.

In the long-vowel system, two developments took place which had the effect of rendering it symmetrical with the short vowel system in the surviving dialects: /ē¹/ was lowered to low neutral /ā/, e.g. PGmc. */jēra-/ > */jār-/ 'year', and a new mid spread phoneme /ē²/ appeared. As long as the exact origin of /ē²/ remains a matter of debate (see fn. 49 below), the relation between its appearance and the displacement of /ē¹/ cannot be determined. There can be no doubt, however, that the shift in /ē¹/ also affected the two allophones of this phoneme. With the lowering of /ē¹/ to /ā/, the former higher allophone [ē] became [æ], e.g. PGmc. */mēri-/ = *[mɛri-] > */māri-/ = *[mæri-], while the former back allophone [ā] became [ɑ], e.g. PGmc. */rēdu-/ = *[rɛ̯ðu-] > */rādu-/ = *[rɑ̯ðu-]. /ē²/ does not seem to have developed any umlaut variants. The five-phoneme system thus derived is shown in Table 5.

5. In the preceding section we have traced the development of the vowel systems from the original Proto-Germanic state to a stage which may be considered the forerunner of all the North and West Germanic languages. The reflexes of the phonemicization of [o] > /o/ and the realignment of the lower and higher allophones of /i/ and /e/, respectively, are clearly discernible in these languages. The lowering of /ē¹/ > /ā/ and the appearance of /ē²/ can also be placed in a period of common development, since all the later dialects display distinct though sometimes divergent reflexes of these innovations. Lüdtkke assumes that

	SPREAD	ROUNDED
HIGH	/i/ [ɪ]	[y] /u/
MID	/e/ [ɛ]	[ø] /o/
	[æ] [ə] [ɑ]	
LOW	/a/	

TABLE 4

	SPREAD	ROUNDED
HIGH	/ī/ [i̯]	[ȳ] /ū/
MID	/ē²/	[ō] /ō/
	[æ] [ā]	
LOW	/ā/	

TABLE 5

³¹ In the case of the *i*-umlaut of PGmc. /eu/, we have an instance of the combined umlaut of the syllable peak /e/. The glide /u/ causes the retraction of /e/, while the /-i/ of the next syllable raises it, and the result is a higher back allophone of /e/, which I designate by [ɤ]. The diphthong is then realized as [ɤy]. Upon the attraction of the higher allophone of /e/ into the orbit of /i/, this higher back allophone also joins the /i/-phoneme, but since it is already a back variety (and continues to be conditioned by the glide /u/), it coalesces with the high back allophone [ɪ], producing the transition of /eu/ = [ɤy] > /iu/ = [ɪy]. See §7 below.

/ē²/ and (according to his theory) the subsequent displacement of /ē¹/ > /ā/ originated in Upper Germany and spread northward to the other dialects, failing to reach the 'peripheral' areas of the Goths and the Anglians.³² However, we have evidence that /ā/ was already present in the continental home of the Anglians before their migration to Britain (e.g. the runic inscription of Torsbjærg, from ca. 300 A.D.).³³ At this time, of course, the Anglians could not have represented a 'peripheral' area. Secondly, it is difficult to conceive of /ā/ having been borrowed into North Germanic from Lütke's 'Germania Superior' when it is claimed that the Franks retained the older shape of /ē¹/ until the 6th century.³⁴ The displacement of /ē¹/ toward the [ā]-position could have varied in degree within the dialects of this linguistic community,³⁵ but the position of the phoneme in the structural system of all the dialects was undoubtedly low neutral, as can be seen from the various reflexes in the so-called 'Ingvaenic' dialects. Penzl, for example, has demonstrated that OE *æ* (Angl. *ē*) < PGmc. /ē¹/ can best be explained as a reflex of conditioned variants of an original /ā/-phoneme corresponding to the /ā/ of the other West and North Germanic dialects.³⁶ Before assigning a specific name to this stage in the development of prehistoric Germanic, we must first attempt to determine whether the East Germanic languages shared in the changes leading to it.

Although Wulfian Gothic reflects a different distribution of allophones for pre-Gothic /i/ and /e/, there are some bits of evidence which might be interpreted to indicate that pre-Gothic, too, participated in the redistribution of the Proto-Germanic allophones conditioned by the nature of the vowel of the succeeding syllable: cf. Goth. *atþþau*, *waita* and *hiri*, *hirjats*.³⁷ In addition, Crimean Gothic may reflect unraised /e/ in *stega* 'twenty' and umlauted /e/ in *fyder* 'four'.³⁸ The original Proto-Germanic distribution of the allophones of /u/ may be reflected in Goth. *aufto* and *-uh* (*hazuh* etc.),³⁹ as well as in Crimean Goth. *schuos* (for **schnos*?) 'sponsa' and *thurn* 'porta'.⁴⁰

³² Lütke 171-2. A supposed South German origin was also proposed by L. Wolff, 'Die Stellung des Altsächsischen', *ZfdA* 71.129-54 (1934).

³³ Noreen §34.

³⁴ Here Lütke refers essentially to the list of Frankish names with *e*-spellings in Latin documents which O. Bremer presented in 'Germanisches *ē*', *Beiträge* 11.19-25 (1886). However, the research of S. Sonderegger, 'Das Althochdeutsche der Vorakte der älteren St. Galler Urkunden: Ein Beitrag zum Problem der Urkundensprache in althochdeutscher Zeit', *ZfMaf* 28.251-86 (1961), demonstrates the disparity between the traditional, official spellings of the documents and the actual forms of the spoken language, so that one must use utmost caution in employing such material for the purpose of establishing the chronology of phonological developments.

³⁵ Brunner 75 and 237.

³⁶ Penzl, *Wiener Beiträge* 66.158-69.

³⁷ W. Krause, *Handbuch des Gotischen* §61.5 (Munich, 1953).

³⁸ See S. Feist, *Vergleichendes Wörterbuch der gotischen Sprache*³ s.v. *stega* and *fidur*, *fidwor* (Leiden, 1939). The *y* of *fyder* can be considered the result of an *i*-umlaut if one posits PGmc. */feduri-/,.

³⁹ Krause §62.3.

⁴⁰ Feist s.v. *schuos* and *thurn*. There are other Crimean Gothic forms which might be cited here (see Krause §22), but I have restricted myself to these, which, as Cowgill has suggested to me, are the only ones not likely to have been influenced by Dutch or German models.

The consistent representation of the reflex of /ē¹/ by Gothic *e* (with some variation toward /ī/ *ei*, which is also evident in Crimean Gothic)⁴¹ indicates that this branch of Germanic did not participate in the lowering of this phoneme to /ā/, which is already attested in contemporary or even earlier runic inscriptions.

Recent investigations of the origin of /ē²/ have not yet provided a completely satisfactory solution to the problem, and it remains to be determined whether this phoneme is restricted to North and West Germanic or is also present in Gothic.⁴²

6. From the evidence above, it is clear that the vowel systems outlined in Tables 4 and 5 represent a stage of development which, in its entirety, is common to the North and West Germanic languages and foreign to Gothic. It therefore seems appropriate to give this intermediate stage between Proto-Germanic and the later North and West Germanic languages the simple yet clear designation 'Northwest Germanic (NwGmc.)'. The demarcation of the boundary between Proto-Germanic and Northwest Germanic is then a function of a bundle of isoglosses: (1) the reassignment of [i] > /e/ and of [e] > /i/, (2) the phonemicization of [o] > /o/, (3) the lowering of /ē¹/ > /ā/, and (4) the appearance of /ē²/.

The delimitation of stages in the development of a language is always an arbitrary undertaking which has the sole purpose of facilitating comparative and historical studies. The transition from one stage to another is always gradual in reality, and there is always a period between the two which shows certain characteristics of both the preceding and the succeeding stage.⁴³ We must expect the same situation to apply to prehistoric stages. The period between the appearance of the first and last of the isoglosses separating Proto-Germanic from Northwest Germanic represents a transitional stage, and according to the prevailing practice, we can divide it into two portions, one labeled 'Late Proto-Germanic' and the other 'pre-Northwest-Germanic'. The question now is: which isoglosses will we single out to denote the close of Proto-Germanic and the beginning of Northwest Germanic?⁴⁴ Since the origin of /ē²/ is disputed, we cannot use this to demarcate a boundary. Isogloss (1), representing the reassignment of allophones to different phonemes, does not indicate a structurally significant change, but merely the redistribution of two phonemes already present. It therefore does not qualify as a major break in the continuum. Isogloss (2), however, represents the loss of final /-e -a/ and the creation of a new phoneme producing a symmetrical five-phoneme system which is the basis of the further development of the North and West Germanic languages. It can therefore be considered a major break and can be used to designate the end of Proto-Ger-

⁴¹ Krause §55.2 and 22.

⁴² Cf. Kuryłowicz 50-2; Lüttke 161-3; van Coetsem 35-40; and see fn. 49 below.

⁴³ See H. Moser, *Deutsche Sprachgeschichte*⁴ 101 (Stuttgart, 1961).

⁴⁴ The chronological problem is analogous to the geographic one of establishing the boundary between High and Low German in the area along the Rhine ('Rhenish Fan'); see B. Martin, *Die deutschen Mundarten*² 138-9 and 186 (Marburg, 1959).

manic, which will be defined as that stage of Germanic spoken from the time of the Germanic accent shift to the time of the phonemicization of [o] > /o/, i.e. the loss of final /-e -a/.⁴⁵

The evidence for the pre-Gothic development is sparse and often tenuous. It does not seem possible to posit a definite point for the beginning of the separation of pre-Gothic from the rest of the original Germanic community. It is clear, however, that the separation must have occurred before the onset of the lowering of /ē/ > /ā/. Our tentative definition of Northwest Germanic will then be that stage of Germanic spoken from the time of the lowering of /ē/ > /ā/ to the time of the appearance of structurally significant isoglosses which permit us to conclude that this period has come to an end.

The isoglosses we have been considering and the stages we have posited are represented graphically in Table 6.

7. Having defined the boundaries of Proto-Germanic and the beginning of Northwest Germanic, I am now obliged to provide a brief description of the phonological structure of each period.

PROTO-GERMANIC:

Consonants: /p t k, f þ x (h) s, b d g z/

Resonants: /r l m n j w/⁴⁶

	-----	Gmc. sound shift
	pre-Germanic	
	-----	Gmc. accent shift
	Proto-Germanic	
(1)	-----	[i] > /e/ [ē] > /i/
	Late Proto-Germanic	
(2)	-----	loss of final /-e -a/
	pre-Northwest-Germanic	
(3)	-----	/ē/ > /ā/
	Northwest Germanic	
	-----	(not yet defined)

TABLE 6. PREHISTORIC STAGES OF GERMANIC

⁴⁵ It is clear from the foregoing that I, following Lehmann, propose to define stages purely on the basis of structural data. The question of the point at which Gothic began its divergent development is not relevant to the issue at hand. The appearance of an independent daughter language cannot in itself determine the point at which we should consider the parent language to have ceased to exist. Such an argument would imply, for example, that Dutch must have ceased to exist, or at least to have ceased to be the 'same' Dutch as it formerly was, upon the appearance of Afrikaans. The family-tree theory encouraged such thinking by positing the sharp splits so justly condemned by Bloomfield. To be sure, the appearance of a daughter language affects the geographic distribution of the parent language, but not necessarily its structure.

⁴⁶ Concerning the consonantal system, see Lehmann, *JEGP* 52.140-52 (I have not included the laryngeals which Lehmann posits), and Moulton, 'The stops and spirants of early Germanic', *Lg.* 30.1-42 (1954). I am not completely convinced that it is necessary to posit /x/ and /h/ as separate phonemes, but the issue is not central to this paper.

Vowels: /i e a u, i ē ō ū/ (see Tables 2 and 3)

Diphthongs (vowel clusters):⁴⁷ /ei eu ai au/ and vowel + /r l m n/

In addition to the stop and spirant allophones of /b d g/⁴⁸ and the allophones of the simple vowels discussed above (§4), it is also possible to posit, on the basis of the later developments, the following approximate phonetic shapes or variants for the vowel clusters:

/ei/ = [eɪ]⁴⁹

/eu/, normally [Au], e.g. */beude/ = *[bAuðe] 'bid', has the variant [Ao] before /-a/, e.g. */beudan-/ = *[bAoðan-] 'to bid', and [Ay] before /-i/, e.g. */beudi-/ = *[bAyði-] 'you, he bid(s)'

⁴⁷ The development of these so-called diphthongs before their monophthongization in the various dialects or right down to the present day in High German and West Norse reveals that they were vowel clusters in which the constituents patterned in the same manner as the simple vowels (cf. van Coetsem 9). Since the first element of these clusters always represents the syllable peak in the periods under discussion here, I have not separately indicated the nonsyllabic nature of the second element. On the development of these clusters into Old High German, see *Beiträge* 86:2.

⁴⁸ See Moulton, *Lg.* 30.1-42.

⁴⁹ The retention of PIE /ey/ as a cluster into Proto-Germanic may be assumed on the basis of the following considerations. The forms *Alateiviae* in the inscription from Xanten and *Teiva-varia(z)* 'Ziuverehrer, Beiname der Sueben', cited by Rosenfeld from a gloss in the manuscript of the Wessobrunn Prayer, indicate it had not yet become /i/; see W. Schulze, 'Alaferhviae', *ZfdA* 54.172-4 (1913), and H. Rosenfeld, 'Die Inschrift des Helms von Negau', *ZfdA* 86.258 (1955-6). The inscription on the Helmet from Negau is too controversial to be cited as evidence here; see R. Eggers, 'Die Inschrift des Harigasthelms', *Anzeiger der Österreichischen Akademie der Wissenschaften, Philologisch-historische Klasse* 1959.79-91. The development of all the other Proto-Indo-European clusters parallels that of the single vowels, and there is no reason to assume that /ei/ constitutes an exception, since /e/ is retained in Proto-Germanic before /-i/ in following syllables, before nasal clusters and in certain weakly stressed syllables; see Lehmann, *Lg.* 37.71, and M. M. Guxman, 'Sistem glasnyx fonem v germanskix jazykax', *Sravnitel'naja grammatika germanskix jazykov* 2.95 (Moscow, 1962). While we must assume that PIE /-e/ remained unchanged in absolute final position in view of the fact that not only [-i] and [-u] were retained but also /-a/ and /-o/ (see fn. 56 below), the presence of *i*-umlaut in forms with reflexes of PIE /-e/ before PGmc. /z/, e.g. OE *menn* < PGmc. */manniz/, indicates that in this environment /-e/ had become /-i/. It is also apparent from the presence of umlaut in the 2d and 3d sg. present indicative of strong verbs that there was an /-i/ in a following syllable in Proto-Germanic times. Whether this /-i/ was located in the third syllable, e.g. PGmc. */beudesi-, -epi/, or in the second, e.g. */beudis-, -ip-/, cannot be determined on the basis of the umlauted root vowel (that an /-i/ of a third syllable could cause umlaut in the root is seen clearly from such forms as MHG *māgede* 'maiden' < OHG *magadi* < PGmc. */magudi-/; see *Beiträge* 86:2 §6). The problem deserves further investigation, but for the sake of brevity here, I cite the 2d and 3d sg. forms merely as root + /i/, e.g. PGmc. */beudi-/ 'you, he bid(s)'.

Van Coetsem has suggested that /ē²/ represents an *a*-umlaut of PGmc. /ei/ (35-40). His argumentation falters on the question of the analogical leveling of /ē²/ in favor of /i/ in the infinitive and present participle of strong verbs of class I, as well as in the *a*-stem nouns and adjectives; see his 'Zur Analogie im Germanischen', *ZfMaf.* 29.216-27 (1962). It is indeed difficult to see how /ē²/ could have been removed without a trace in these forms. The situation is quite different, however, when we consider the development of

/ai/, normally [æi], has the variant [ae æe] before /-a/⁵⁰ and [əu] before /-u/⁵¹ /au/, normally [au], has the variant [ao] before /-a/ (see fn. 58 below), and [əy] before /-i/, e.g. */laugni-/ = */[əy]3ni- 'he denies'.

We must also posit for this period the presence of PGmc. /e/ before nasal clusters,⁵² in which case the /e/ also had a higher allophone [e̥].

After the changes described by the four isoglosses posited above, this Proto-Germanic system was superseded by the following

NORTHWEST GERMANIC:

Consonants: /p t k, f ɸ x (h) s, b d g z/

Resonants: /r l m n j w/

Vowels: /i e a o u, ī ē ā ō ū/ (see tables 4 and 5)

Diphthongs (vowel clusters): /iu eu eo ai ae au ao/, and vowel + /r l m n/

In this period we can undoubtedly place the beginning of the development of

/ei/ in the light of that of the other clusters. The glide /i/ has the effect of raising the syllable peak to [e̥]. An /-a/ of the following syllable, however, affects the tongue height of the glide, lowering it to [i]. The cluster is thus realized in two variants, [e̥i] in most positions, but [ei] before /-a/ (cf. /eu, au, ai/ below). In the Proto-Germanic paradigm, then, we have the following forms: */beitan-/ = */[be̥itan-] 'to bite', but */beiti-/ = */[be̥iti-] 'you, he bite(s)' and */beite/ = */[be̥ite] 'bite!'. When the reassignment of allophones takes place, the result is */bietan-/ , but */biiti-/ and */biit/ (with /ii/ = /i/; see Hamp, *SL* 13.32). The phonetic difference between /ie/ and /ii/ was, of course, extremely slight, as was the phonological burden of this contrast. Before retained /-a/ (as in the infinitive and the present participle) and before /-i/ (as in the 2d and 3d sg. pres. ind.), the contrast was neutralized. It was therefore significant only in those forms in which /-a/ or /-e/ had been lost, e.g. */biit/ 'bite!', but */hwiet-/ (< */hweita-/ 'white'. That leveling should remove all traces of /ie/ from the verb paradigm is certainly not surprising, nor is it any more surprising that /ie/ should not have been able to maintain itself in the great majority of environments in forms not subject to analogical leveling. Where then do we find reflexes of [e̥i]? I believe we have them in those forms in Gothic and the other Germanic languages which have traditionally been considered to contain /ē̆/. The influence of /r/ on the development of [e̥i] > /ē̆/ is quite obvious, cf. OHG *hiar*, *ziari*, *wiari*, *skiaro*, *fara*, and accounts for the low reflex in Goth. *hēr* and *fēra*. The presence of variant forms in different dialects, e.g. OE *tīr*, *wīr*, OIcel. *tīrr*, *skīrr*, and within the same dialect, e.g. OS *hēr* and *hīr*, need not surprise us either. Developments from original allophonic variants or from phonemes with neutralized contrasts are quite often inscrutable (cf. OHG *wolf*, OE *wulf*; OE *spic*, *spec*; OHG OE *fisk*; all *a*-stems). I also see no major obstacle to assuming that /ē̆/ in the former reduplicating verbs represents a coalescence of the secondary clusters /ee/ and /ea/ which Lütke posits as an intermediate stage in North and West Germanic (164-5) with an already present /ē̆/ < [e̥i]. According to this derivation, the rise of the prototype of /ē̆/ as a conditioned variant would have to be placed at isogloss (1), the boundary between Proto-Germanic proper and Late Proto-Germanic, while its emergence as a separate phoneme upon the loss of the conditioning /-a/ would coincide with isogloss (2), thus further strengthening the demarcation of the end of the Proto-Germanic period.

⁵⁰ This variant must be posited to account for the Old English development of /ai/ > /ā/; see fn. 56 below. I use the double symbol [ae æe] because it is not clear which of these approximate values should be assigned. It may well be that the actual value lay between the two.

⁵¹ Reflected in OIcel. *ey*, ONorw. *øy*, OGuthn. *oy*, and OSw. ODan. *ȳ*; cf. Noreen §41c.

⁵² See Fromm 95-6; Guxman 93-4.

PGmc. /z/ toward [r]⁵³ and the diverging geographical distribution of the allophones of /b d g/.⁵⁴

With the reassignment of [e] > /i/, PGmc. /ei/ has become /ī/ (see fn. 49 above), while [ay], the *i*-umlaut of /eu/, e.g. PGmc. */beudi-/ = *[b̥ay̥ði-], has become [uɣy], i.e. a new cluster /iu/, e.g. NwGmc. */biudi-/ = *[b̥uɣy̥ði-].⁵⁵ The attraction of [i] to /e/ results in the new cluster /ae/, while the phonemicization of [o] > /o/ calls forth /eo/, e.g. PGmc. */beudan-/ = *[b̥aoðan-] > NwGmc. */beodan-/ = *[b̥aoðan-], as well as /ao/.⁵⁶ In Northwest Germanic,

⁵³ See A. I. Smirnickij, 'Otpadenie konečnogo z v zapadnogermanskix jazykax i izmenenie z v r', *Trudy Instituta jazykoznanija AN SSSR* 9.115-36 (1958).

⁵⁴ Although the geographically divergent distribution of the allophones of these phonemes may go back to Proto-Germanic times, it seems possible to posit for Northwest Germanic a pre-North-Germanic area in which /d/ was realized as [d] and [ð], and a pre-West-Germanic area in which the sole realization was [d]. Similarly, two areas of Northwest Germanic are defined by the realization of /b/ as [b] in pre-High-German, but as [b] and [β] in the remainder of the community. The allophones of /g/, on the other hand, reveal a threefold division: [g] in pre-High-German, [ʒ] in pre-Low-German, and both [g] and [ʒ] in pre-English and pre-North-Germanic; see Moulton, *Lg.* 30.1-42.

⁵⁵ The opposition between NwGmc. /iu/ = [uɣy] and /eu/ = [ʌu] is neatly confirmed by the reflexes in Middle High German, where OHG /iū/ < NwGmc. /iu/ has not yet coalesced with OHG /iu/ < NwGmc. /eu/; see W. Braune, *Althochdeutsche Grammatik*¹⁰ §49 (Tübingen, 1961), and *Beiträge* 86:2 §6.

⁵⁶ The positing of /ae/ and /ao/ for Northwest Germanic may seem somewhat schematic, but evidence for /ae/ is presented by the Old English reflex /ā/ < PGmc. /ai/ before /-a/ (contrasted with OE /æ ē/ < PGmc. /ai/ before /-i/). Compare PGmc. */daila-/ > NwGmc. */dael-/ > OE *dāl* 'dole', and PGmc. */daili-/ > NwGmc. */daili-/ > OE *dæl dēl* 'deal'; see F. Kluge, *Etymologisches Wörterbuch der deutschen Sprache*¹⁷ s.v. *Teil* (Berlin, 1957). We must therefore conclude that OE *wāt* represents the normal development from PGmc. */waita/ > NwGmc. */waet/ 'I know', and we now have direct evidence for the retention of PIE /-a -o/ in absolute final position in Proto-Germanic, as Lehmann has suggested. Cf. Makaev, *SG* 117.

The fact that Old Frisian displays *wēt* for 'I, he know(s)' may be interpreted to represent a different leveling in the paradigm, this time in favor of the 3d sg., PGmc. */waite/ > NwGmc. */wait/ = *[wæit], which we also find in all the other dialects: OHG *weiz*, Oícel. *veit*, OS OSw. ODan. *wēt*. The dialectal reflexes of NwGmc. /ae/ and /ai/ cannot, however, all be ascribed to leveling within paradigms, as can be seen from the forms of *a*-stem nouns: OE *stān*, *sār* (with the original distribution), but Oícel. *steinn*, *sār*, OHG *stein*, *sēr*, OFris. OSw. ODan. *stēn*, *sār*, OS *stēn*, *sēr*. It is obvious that secondary developments have obscured the original distribution in the latter dialects, leading to the coalescence of NwGmc. /ae/ and /ai/ in /ai/ in all positions in Old Saxon and apparently in Old High German (but note OHG /ē/, with the older spellings *ae*, *ē*, before /h, r, w/; Braune §43), whereas in Scandinavian and Old Frisian the lower cluster /ae/ is reflected in /ā/ before /h, r/ (Noreen §40b), and in Old Frisian also in open syllables before /w/; see W. Steller, *Abriss der altfriesischen Grammatik* §18 (Halle, 1928). A coalescence of these two clusters could hardly be surprising when one considers the slight phonetic difference between [æ æ] and [æi], the low yield of the contrast (until the loss of /-i/, the clusters contrasted only in forms formerly ending in /-a/ and /-e/), and the possibility of leveling in certain paradigms. We have many parallel developments in the later histories of the individual dialects, such as the eventual coalescence of NwGmc. /iu/ and /eu/ in New High German (see fn. 55 above), and in ODan. /ȳ/ (but OSw. /ȳ/ and /iū/; Noreen §160).

For the contrast between NwGmc. /ao/ and /au/, the same conditions of phonetic similarity between [ao] and [au], low yield, and the possibility of leveling (e.g. NwGmc. */baog/ < PGmc. */bauga/ 'I bent' and */baug/ < */bauge/ 'he bent') have left little in the way

then, two clusters have two allophonic shapes each: /au/ = [au] in most environments, but [əy] before /-i/; /ai/ = [æi] in most environments, but [əu] before /-u/. The other clusters are realized as follows: /iu/ = [uɣy], /eu/ = [Λu], /eo/ = [Λo], /æ/ = [æ æe], and /ao/ = [Λo].

PGmc. /e/ before nasal clusters has become /i/.⁵⁷

The problem of determining the end of the Northwest Germanic period must be left to future investigation, but it is already predictable that the definition will involve the arbitrary selection of one of a number of isoglosses which describe transitional stages rather than a sudden demise of the language upon the appearance of one or more daughter languages. The definition of stages according to the method here outlined permits us to present the historical development of languages as a gradual process distinctly different from the sharp splitting which the family-tree theory implies. It also permits us to conceive of relative uniformity with dialectal and chronological variation, consistent with our knowledge of the mechanisms of language change and diversification.

There are two further points which I wish to make before concluding. I have based my definitions of the stages of development entirely on phonological criteria. A more general treatment would also have to consider the morphological and syntactic evidence. It is generally true, however, that these three hierarchical levels tend to interact, so that a change in one often calls forth or is itself called forth by changes in the others. Thus, the loss of PGmc. /e a/ in weakly stressed final syllables not only calls forth the phonemicization of [o] > /o/, but also results in the coalescence of the 1st and 3d sg. indicative past of the strong verbs, e.g. PGmc. */fanda/ 'I found' and */fande/ 'he found' > NwGmc. */fand/ 'I, he found'.⁵⁸ At least one recent investigation of the morphological evidence (with which I was not familiar before arriving at my own conclusions on the basis of purely phonological developments) supports the division of prehistoric Germanic into Proto-Germanic and a common Northwest Germanic period.⁵⁹

of direct evidence. Nevertheless, I take the early Old English spellings *æo æo* and *æa æa* for PGmc. /au/ (compared to *iu* and *eu* for PGmc. /eu/) to be an indication that in Old English the lower cluster won out over the higher, as was the case with NwGmc. /æ/ and /ai/ (Brunner 231-2). Similar evidence for a parallel development between NwGmc. /æ/ : /ai/ and /ao/ : /au/ may be seen in the fact that Scandinavian and Old High German have favored the higher cluster /au/ in most positions, but the lower one before /h r/; cf. OIcel. *laukr* < PGmc. */laukaz/ 'leek', but *hōr* < PGmc. */hauhaz/ 'high', and OHG *lauh*, but *hōh*, with the early Old High German spelling *ao* for later *ō* (see Braune §45, and Noreen §43).

⁵⁷ See Fromm 95-6; Guxman 93-4.

⁵⁸ Note that for Northwest Germanic we must posit distinct forms for the 1st and 3d sg. of strong verbs of classes I and II before the coalescence of the vowel clusters discussed in fn. 56. Thus, PGmc. */baita/ and */baite/ > NwGmc. */baet/ 'I bit' and */bait/ 'he bit'; PGmc. */bauda/ and */baude/ > NwGmc. */baod/ 'I bade' and */baud/ 'he bade'. The leveling of these contrasts in favor of the reflexes of /æ/ and /ao/ in pre-English, but generally in favor of /ai/ and /au/ in the other dialects, constitutes one of the isoglosses marking the transition from Northwest Germanic to the later dialects and therefore represents a dialectal variation which we can posit for Late Northwest Germanic.

⁵⁹ M. Adamus, 'Mutual relations between Nordic and other Germanic dialects', *Germanica Wratislaviensia* 7.115-58 (1962). Adamus speaks of 'Common Germanic' and 'North-West Germanic', the latter having 'remained one single dialect for a fairly long time' after

The seeming impossibility of determining whether the early runic inscriptions belong to North or to West Germanic, while they are clearly not East Germanic, has led Makaev to assume that 'the language of the runic inscriptions was formed as a special runic koine, the first supradialectal literary variant in the history of the Germanic languages, [belonging to] that linguistic community which included all of Late Germanic after the separation of Gothic' (*SG* 122). In opposition to this view, Žirmunskij maintains that 'It is not comprehensible on what social basis such a written koine could have arisen in the broad area of the North and West Germanic dialects under the conditions of a patriarchal-familial structure' (12 fn. 5). A period of common development for the North and West Germanic languages obviates the need for assuming that the language of these inscriptions arose as a 'literary koine' (although it may have been retained as such for some time) and at the same time explains the difficulty of assigning the inscriptions to either group.

the separation of Gothic (157). Another recent study by L. Rösler, *Die Gliederung der germanischen Sprachen nach dem Zeugnis ihrer Flexionsformen* (Nürnberg, 1962), presents a somewhat different view, but posits a long period of common development for Scandinavian and English. V. M. Žirmunskij, *Vvedenie v sravnitel'no-istoričeskoe izučenie germanskix jazykov* (Moscow-Leningrad, 1964), demands that diachronic studies take full cognizance of extralinguistic evidence in tracing the development of the Germanic languages (7) and holds to the theory of a Gothic-Scandinavian linguistic community distinct from the West Germanic languages.

Since this paper is primarily concerned with the establishment of stages of development in prehistoric Germanic, I have made no attempt to give a complete picture of the dialect divisions within each stage. It might be noted here, however, that the isoglosses representing the different development of PGmc. /jj/ and /ww/ most likely demarcate a division of Proto-Germanic into a pre-North- and East-Germanic dialect on the one hand and a pre-West-Germanic dialect on the other, while the same isoglosses continue to separate pre-North-Germanic from pre-West-Germanic in the Northwest Germanic period.